DOCUMENT RESUME

ED 285 405 FL 016 870

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TITLE Reference Point Marking in Emai.
PUB DATE Dec 86
NOTE 43p.; Paper presented at the Annual Meeting of the Linguistic Society of America (61st, New York, NY, December 27-30, 1986).
PUB TYPE Reports - Evaluative/Feasibility (142) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Correlation; Developing Nations; Discourse Analysis; Grammar; *Language Patterns; Language Variation; *Nouns; Phrase Structure; *Semantics; *Sentence Structure; Structural Analysis (Linguistics); Syntax; Uncommonly Taught Languages
IDENTIFIERS *Emai; *Lexical Semantics; Markedness; Nigeria

ABSTRACT

Semantic noun classes in Emai, an Edoid language of Nigeria, are examined with respect to a process of Reference Point Marking (RPM) in order to explore the relationship between discourse and lexical semantics. Across pre- and post-verbal positions subcategorized by verbs like "rere" ("to be far"), these classes are shown to attract RPM in a variable manner. To describe this variability, it proves useful to recognize a spatial stability continuum ranging across and within nouns of place and nonplace, as well as two constraints. For constructions combining place and nonplace nouns, RPM affects the latter, irrespective of its position. For constructions combining exclusively place or nonplace nouns, RPM affects not only nonplace nouns in post-verbal position but the pre-verbal noun when the spatial position of its referent represents new information in discourse. Finally, through apparent irregularities in their application, these constraints on discourse form and lexical semantics are shown to interlock with assumptions of spatial stability differentially assigned to nominals functioning as Figure or Ground. (Author/MSE)

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ED285405

Reference Point Marking in Emai*

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RUNNING HEAD: Reference Point Marking

Paper presented at the Annual Meeting of the Linguistic Society of America (61st, New York, NY, December 27-30, 1986).

*Preparation of this study has benefited at different stages from research support provided by the University of Benin, Nigeria, and Southern Illinois University at Edwardsville. For their diligence and keen interest, I also express appreciation to my Emai assistants, Francis Egbokhare and Gabriel Egeruan.

FL016870

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ABSTRACT

Semantic noun classes in Emai, an Edoid language of Nigeria, are examined with respect to a process of Reference Point Marking (RPM) in order to explore the relationship between discourse and lexical semantics. Across pre- and post-verbal positions subcategorized by verbs like *rere* 'to be far' these classes are shown to attract RPM in a variable manner. To describe this variability, it proves useful to recognize a spatial stability continuum ranging across and within nouns of place and nonplace, as well as two constraints. For constructions combining place and nonplace nouns, RPM affects the latter, irrespective of its position. And for constructions combining exclusively place or nonplace nouns, RPM affects not only nonplace nouns in post-verbal position but the pre-verbal noun when the spatial position of its referent represents new information in discourse. Finally, through apparent irregularities in their application, these constraints on discourse form and lexical semantics are shown to interlock with assumptions of spatial stability differentially assigned to nominals functioning as Figure or Ground.

REFERENCE POINT MARKING IN EMAI[1]

1.0 INTRODUCTION

Within grammatical theory it is not uncommon to exploit a difference in behavior between nouns indicating objects and those designating places. This is the case in Lyons (1977), for example, where the hypothesized place/object ambiguity of a noun like *house*, e.g. *The boy is in the house* vs. *The house is huge*, is used to exclude it, and others of its kind, from the class of first order entities, a linguistic category postulated as ontologically basic.

Distinguishing place from object nouns figures more prominently in Denny's (1984) interpretation of Kikuyu, a language of East Africa. Denny adduces evidence from expressions functioning as locative reference points to show that place and object nouns are treated differently. More specifically, a noun which refers to a manipulable object in Kikuyu, e.g. *gîtî* 'chair,' can express a locative reference point only if attached to it is the suffix *inî*, *ndîmîtigire gîtî-inî* 'I left it on the chair,' not *ndîmîtigire gîtî*; whereas a noun which refers to an obvious place, e.g. *handû* 'place,' cannot co-occur with *inî*, *ndîmîtigire*

handũ, 'I left it somewhere,' but not *ndĩ■ĩtigire handũ-inĩ*. Little additional illustration is provided by Denny, but the overall scheme is brought into somewhat clearer focus by his example noun *■ũgũnda* 'garden,' which fails to attract the marker *inĩ* (*ndĩ■ĩtigire ■ũgũnda* 'I left it in the garden,' not *ndĩ■ĩtigire ■ũgũnda-inĩ*) and so acts like a place noun.

Denny's analysis of the process governing *inĩ* attachment as support for a fundamental division within the class noun is not particularly controversial, but it does have strong implications for functional interpretations of universal grammar as discussed for instance by Foley and Van Valin (1984). In particular, it implies that a locative reference point will tend to be designated by either an unmarked place noun or a grammatically marked object noun but not vice versa. Moreover, his interpretation assumes that the principal grammatical factor relevant to the surface expression of the reference point category is the semantic distinction between place and object. These implications and assumptions, limited as they are to a single language and a single construction type, appear at odds with a theoretical position espoused of late within the context of universal grammar.

2.0 UNIVERSAL GRAMMAR

A recent study by Hopper and Thompson (1984) argues that the semantic properties of lexical items consistently adopt a posture subordinate to discourse features in the explication of grammatical structure. A noun, according to their interpretation, does not instantiate categoriality, the property of being prototypical of a grammatical class, by means of its semantic properties; *fox's* reference to a tangible, manipulable object or *furniture's* reference to a non-tangible, non-manipulable object makes neither noun prototypical. Rather, Hopper and Thompson hypothesize that the determination of categoriality for nouns is dependent on discourse function: the introduction of participants.

To continue with the example noun *fox*, it introduces a discourse participant in the sentence *We chased an old red fox* and freely accepts grammatical markers distinguishing between the classes noun and verb, i.e. number, determiners and demonstratives. Nevertheless, this same noun in a generic utterance, e.g. *Foxes are cunning*, fails to introduce a participant and, following Hopper and Thompson's hypothesis, fails to adopt freely this same range of distinguishing markers. Since the semantic properties of *fox* remain intact across these sentences, it is discourse function which determines categoriality or prototypic status.

Although the examples from Hopper and Thompson do point toward the secondary status of semantic properties vis-à-vis discourse properties, the few illustrations from Kikuyu cited in Denny suggest a possible limit to such a strong interpretation of their relationship. Afterall, it is the semantic distinction between place and object which appears to dictate how individual nouns functioning as locative reference points are grammatically treated by the suffix *inĩ*. In an attempt to explore more precisely a potential limitation on Hopper and Thompson's characterization of the relationship between discourse and lexical semantics, we analyze the nature of reference point marking in Emai, an Edoid language of south-central Nigeria [2].

3.0 REFERENCE POINT MARKING

Reference point marking (RPM) in Emai refers to a process in which a noun phrase is framed with a wh-clause consisting of the question word *ébe* 'where,' the verb *ri* 'be located,' and a noun, e.g. *ébe óran rí* 'where the tree is'. This clause occurs with different types of predicates which have accompanying NPs functioning as locative reference points. For one type, only NPs following the predicate adopt the *ébe* clause: *sẹ vbi NP* 'to move to NP'; *ye NP* 'to move toward NP.' With others, both pre- and post-predicate NPs can be framed by *ébe*, e.g. *NP rere NP*, 'NP be far from NP;' *NP sikẹa NP*, 'NP be near to NP.' Of these two types, the latter, as exemplified by *rere*, will be the center of our investigation.

As just mentioned, the predicate *rere* meaning 'to be far' expresses a relation of spatial distance between two reference points, each designated by a NP. With respect to these two NPs, there is one overriding issue: the variable occurrence of the *ébe* clause, that is, RPM. What is theoretically intriguing about the realization of RPM is not its failure to occur consistently in one NP position or the other, but rather its general propensity to exhibit a pattern of discourse controlled variability in position one only in case the companion noun is of the same lexical class and, when identity does not exist, to occur asymmetrically across positions, lexical class again controlling presence of the *ébe* clause. That is, factors of discourse, lexical class and syntactic position interact to provide a complex web of conditions which make it difficult to identity a noun that will consistently adopt RPM across positions or even in a single position.

Faced with such a grammatical situation, it may seem advantageous to lay out the constituency of the various lexical class types as they relate to distribution of the *ébe* clause. Such a task, however, is beyond the scope of the present more limited study. Instead, representative members of semantic classes within the grammatical category noun will be employed in order to sketch an outline of the classificatory system underlying their function as locative reference points and, hence, their tendency to undergo the process RPM. It is hoped

that this strategy will provide some measure of insight into the complex relationship between lexical semantics, discourse and other elements of grammar.

4.0 DISTRIBUTION OF ÉBE CLAUSE

Throughout the following presentation concerning RPM a restricted set of sentence types will be utilized, four variations of the basic *rere* construction to be exact. Each sentence variant represents one of four possible arrangements of the *ébe* clause in the two available NP positions accompanying *rere*, i.e. position one only, position two only, both positions or neither. Relative to these possible arrangements, we will explore the impact of various noun pairs, and their left to right order, on grammatical acceptability [3].

4.1 OBJECT NOUNS

As a first step toward delineating the nature of RPM, consider the sentences in 1 and 2, which involve the nouns *ugín* 'basket' and *ubele* 'gourd.' In particular, notice that not all of the sentences are grammatically acceptable.

Examining first the acceptable sentences in 1, one recognizes that the position one noun *ugín* is capable of standing either with or without an *ébe* clause, 1c and 1d, while its companion noun *ubele* in position two requires the *ébe* frame. In other words, *ugín* alternates between a marked and unmarked NP in position one, whereas *ubele* fails to alternate, being limited to

a marked NP.

1. * a. ọli ugín rérẹ́ vbi ọli ubele
the basket be far from the gourd
'the basket is far from the gourd'

* b. ébe ọli ugín rí rérẹ́ vbi ọli ubele
where the basket be be far from the gourd
'where the basket is is far from the gourd'

c. ébe ọli ugín rí rérẹ́ vbi ébe ọli ubele rí
where the basket be be far from where the gourd be
'where the basket is is far from where the gourd is'

d. ọli ugín rérẹ́ vbi ébe ọli ubele rí
the basket be far from where the gourd be
'the basket is far from where the gourd is'

With respect to the alternation in position one, its source resides in the speaker's attribution of a discourse value to *ugín*'s referent, as implied in the preceding section. That is, the choice between a marked and unmarked NP in position one is determined by the speaker's interpretation of the reference point function of the corresponding noun, i.e. the spatial position of its referent, as information available in the addressee's consciousness or, in the absence of this, as information which must be newly introduced, as discussed by Chafe (1976). More to the point, 1c, with a marked NP in position one, is employed by the speaker when he intends to register the spatial position of *ugín*'s referent as new information; whereas 1d, unmarked *ugín*, is used when the spatial position of the latter is perceived as given, in some way already an aspect of the addressee's consciousness. It is this correlation between structural markedness and the values of given and new information which most

clearly exemplifies the susceptibility of RPM to factors of discourse.

Analyzing the two NP positions further, it is important to note that in the discourse context where the reference point function of the position one noun is introduced as new information (marked NP), the realization of RPM is symmetrical, i.e. both NP positions are framed by an *ébe* clause in 1c. By contrast, it is the context of given information which results in the asymmetrical realization of RPM, i.e. position two is framed by the *ébe* clause but position one is not. This analysis, though brief, clarifies that in sentences containing two object nouns RPM's variability is limited to position one and that across positions its realization is symmetrical only when the position one noun's reference point function constitutes new information. With this in mind, our attention turns to the following sentences in which the noun *ugín* occurs in position two.

2. * a. ọ́li ubele rérḗ vbi ọ́li ugín
'the gourd is far from the basket'

* b. ébe ọ́li ubele rí rérḗ vbi ọ́li ugín
'where the gourd is is far from the basket'

c. ébe ọ́li ubele rí rérḗ vbi ébe ọ́li ugín rí
'where the gourd is isfar from where the basket is'

d. ọ́li ubele rérḗ vbi ébe ọ́li ugín rí
'the gourd is far from where the basket is'

The alternative discourse values accorded *ugín* and the consequent variation in occurrence of the *ébe* clause are lost in position two. Contrary to its behavior in position one, *ugín* in position two adopts only a marked NP form. A comparison of the acceptability of sentences 2a and 2b relative to 2c and 2d argues that *ugín* in the NP position after *rere* must occur in an *ébe* clause when paired with *ubele* in position one. Recognition of these facts leads to an awareness that the variable realization of RPM in *rere* constructions is not only constrained by the speaker's assignment of discourse values but by syntactic position, the later perhaps reflecting a linearization constraint on the speaker's assignment of different types of discourse values (Brown and Yule 1983). In sum, the realization of RPM in position one with *ugín* is variable, its occurrence governed by the speaker's interpretation of the nominal referent's spatial position as new or given information. In position two, on the other hand, RPM is invariable.

That *ugín* is indeed representative of a class of nouns, definable for the moment as manipulable objects, is revealed by the comparable marking of *ubele* 'gourd' in 1 and 2. It, like *ugín*, alternates between a marked and unmarked NP in position one, 2c and 2d, and maintaining this likeness, assumes only a marked form in position two, 1c and 1d. Thus the behavior of *ubele* further establishes that RPM's realization is variable in position one, and relative to both positions, is symmetrical only

in situations where the position one noun is deemed to represent new information.

4.2 LOCATION NOUNS

An instance of the constraining influence of lexical class on RPM exists when the noun *ugín* 'basket' is placed in a *rere* construction with a noun referring to a location in the natural or man-made environment. Recall that in the acceptable sentences of 1 *ugín* alternated between a marked and unmarked NP in first position, when the second position noun was *ubele*. However, when *ugín* is paired with a noun representing a location in the natural environment like *ẹ́da* 'river,' the alternation in position one fails to occur. That is, among the sentences of 3, only 3b, with *ugín* in position one as a marked NP, is acceptable. The position one NP, therefore, is invariable with respect to structural markedness when object and location nouns are paired. Also important to notice is that the markedness pattern across position one and two is asymmetrical, the location noun *ẹ́da* failing to attract RPM.

3. * a. ọ́li ugín rére vbi ọ́li ẹ́da
'the basket is far from the river

b. ébe ọ́li ugín rí rére vbi ọ́li ẹ́da
'where the basket is is far from the river'

* c. ébe ọ́li ugín rí rére vbi ébe ọ́li ẹ́da rí
'where the basket is is far from where the river is'

* d. ọ́li ugín rére vbi ébe ọ́li ẹ́da rí
'the basket is far from where the river is'

Of course, without at least some further examples there is the possibility that this restriction on the variable realization of RPM in 3 may be due to an idiosyncratic lexical property of the noun *ẹ́da*. That this noun, indeed, reflects a class constraint on RPM is shown by the sentences in 4 and 5. In lieu of a noun referring to a location in nature, these sentences combine a noun designating a location of man-made origin, *óa* 'house,' and *ugín*. As was true with in 3, the only acceptable sentence in 4 contains the location noun *óa* in an unmarked NP in position two and the object noun *ugín* in a marked NP in position one, consequently, there is no alternation between a marked and unmarked NP in position one and across positions the realization of RPM is asymmetrical.

4. * a. ọ́li ugín rére vbi ọ́li óa
'the basket is far from the hous'

b. ébe ọ́li ugín rí rére vbi ọ́li óa
'where the basket is is far from the house'

* c. ébe ọ́li ugín rí rére vbi ébe ọ́li óa rí
'where the basket is is far from where the house is'

* d. ọ́li ugín rére vbi ébe ọ́li óa rí
'the basket is far from where the house is'

Placing the nouns *ugín* and *óa* in reverse order in a *rere* construction leads to a comparable reversal in the occurrence of the *ébe* clause. With an exchange of positions, i.e. *óa* in position one and *ugín* in position two in 5, the former again shows itself immune to RPM, since only 5d, where the position one noun *óa* does not adopt the *ébe* clause, is acceptable.

5. * a. ọli óa rérẹ́ vbi ọli ugín
'the house is far from the basket'

* b. ébe ọli óa rí rérẹ́ vbi ọli ugín
'where the hous is is far from the basket'

* c. ébe ọli óa rí rérẹ́ vbi ébe ọli ugín rí
'where the house is is far from where the basket is'

d. ọli óa rérẹ́ vbi ébe ọli ugín rí
'the house is far from where the basket is'

Relative to the acceptable sentences in 4 and 5, it is the consistently unmarked form of the *óa* NP (and by extension other locative nouns) which contrasts with the consistently marked form of the *ugín* NP (extending also to other object nouns). Since the latter are essentially nonplace nouns compared to the place nouns represented by the former, we will say that the realization of RPM is subject to a Place Noun Constraint (PNC): place nouns repel the *ébe* clause and nonplace nouns attract it. Though the motivation for this constraint emanates from the preceding sentences, subsequent sentences will demonstrate that resistance and attraction to RPM in position two is influenced by a factor other than lexical class.

Returning to place nouns, their constraining effect on RPM does not extend to positions one and two when the nouns *óa* 'house' and *ẹ́da* 'river' are paired. Distributing these two nouns across NP positions produces the pattern of RPM variability in position one previously limited to sentences involving two nonplace nouns. Specifically, in the acceptable sentences of 6, the position one noun *óa* alternates between a marked and unmarked NP, 6a and 6b,

in contrast to its behavior in 5, where it assumed only an unmarked form.

6. a. o̲li óa réré vbi o̲li ḛ́da
'the river is far from the house'

b. ébe o̲li óa rí réré vbi o̲li ḛ́da
'where the river is is far from the house'

* c. ébe o̲li óa rí réré vbi ébe o̲li ḛ́da rí
'where the river is is far from where the house is'

* d. o̲li óa réré vbi ébe o̲li ḛ́da rí
'the river is far from where the house is'

And without providing another set of sentences, let us note that the variable realization of RPM in position one extends to other place noun combinations. Indeed, if the order of *óa* and *ḛ́da* in 6 were reversed, the latter would alternate between a marked and unmarked NP in position one and the former would assume an unmarked form in position two. Relative to the sentences of 6, it is also pertinent to take note of the contextual condition under which RPM realization is symmetrical. Previous *rere* constructions pairing two nonplace nouns exhibited symmetry of NP shape when the position one noun was treated as new information. The pairing of place nouns, in contrast, leads to symmetry only when the position one noun is treated as given information.

Equally important to notice is that alternation in position one occurs despite the fact that the position two noun *ḛ́da* is unmarked. In fact, those sentences where *ḛ́da* is marked by an *ébe* clause, 6c and 6d, are unacceptable. As a consequence, the

markedness value of the position two NP is shown to be irrelevant to the range of discourse values allowed to impinge on the position one NP and its consequent realization of RPM.

What does seem relevant in this case, as well as the sentences involving two object nouns, is lexical class, specifically identity of lexical class. Whenever the nouns in a *rere* construction are consistent with a Same Class Constraint (SCC), i.e. both being place or nonplace nouns, the realization of RPM in position one is variable, its structural markedness dependent on discourse values assigned by the speaker. Place nouns, therefore, are subject to the SCC as are nonplace nouns and vary in their structural markedness according to the discourse values given and new. On the other hand, when identity of semantic class does not define the relationship between companion nouns, their respective NPs express contrasting patterns of structural markedness, the particular marking pattern dictated by the PNC, i.e. the place quality of a noun. A lack of class identity, therefore, restricts the role of discourse values and their impact on the realization of RPM in position one.

4.3 ANIMATE NOUNS

The realization of RPM in *rere* constructions becomes more variable as it applies to nouns representing animate beings. The general behavior of these nouns relative to RPM is consistent with other nonplace nouns, i. e. object nouns, in position one and across positions. However, animate nouns give rise to two

irregularities in the distribution of RPM, one involving the pairing of animate and object nouns and the other the pairing of animate nouns with one another. The latter in particular disturbs the neat lexical dichotomy, i.e. place vs nonplace, upon which the PNC and SCC have rested.

To examine a specific animate noun, consider that if a noun designating a personal name like *Ololo* assumes position two in a *rere* construction and is paired with either an object noun like *ugín* 'basket.' the realization of RPM displays no irregularity. That is, the pairing of the nonplace nouns *ugín* and *Ololo* leads to a position one NP varying in markedness, with symmetry of structural markedness exhibited across positions only in the condition where the spatial location of the position one noun represents new information.

Initial support for this generalization is found in the sentences of 7. As shown by the acceptable sentences 7c and 7d, the position two noun *Ololo* must occur in a marked NP, just as *ugín* and *ubele* did in 1 and 2, thereby reflecting the PNC. Meanwhile, the position one noun *ugín* alternates between a marked and unmarked NP. In view of this alternation, and the lexical conditions prevailing in *ugín*'s previous alternation in 1, it would appear that the SCC is indeed specified in terms of the lexical classes place and nonplace. To be sure, it is not only *ugín* and *Ololo* which follow this pattern. If *ubele* 'gourd' were substituted for *ugín* and the animal noun *ófe* 'rat' for *Ololo*, an

identical pattern of variability and symmetry would occur.

7. * a. o̲li ugín réré vbi Ololo
'the basket is far from Ololo'

* b. ébe o̲li ugín rí réré vbi Ololo
'where the basket is is far from Ololo'

c. ébe o̲li ugín rí réré vbi ébe Ololo rí
'where the basket is is far from where Ololo is'

d. o̲li ugín réré vbi ébe Ololo rí
'the basket is far from where Ololo is'

Additional support for assuming that the PNC and SCC are grounded to the broader classes of place and nonplace, and that the human noun *Ololo* is included in the latter, is found in the acceptable sentences of 8. There, *Ololo*, again in position two, is paired with the location noun *ẹ́da*. Given the class affiliation for *Ololo* established by the sentences in 7 and the previous behavior of *ẹ́da* in 3, one would predict that only 8d would be acceptable. And in fact the markedness pattern across positions in 8d is asymmetrical, comparable to the pairing of place and nonplace nouns in 5. Furthermore, the specific markedness pattern evinced by *Ololo* and its companion noun is consistent with the PNC, *ẹ́da* is unmarked and *Ololo* marked. Beyond these specific nouns, the substitution of other animate and location nouns in 8, *óa* and *ófe* for example, would lead to a similar pattern of asymmetrical marking. The behavior of *Ololo* in position two is thus consistent with that of other nonplace nouns.

8. * a. o̲li é̲da rérḗ vbi Ololo
'the river is far from Ololo'

* b. ébe o̲li é̲da rí rérḗ vbi Ololo
'where the river is is far from Ololo'

* c. ébe o̲li é̲da rí rérḗ vbi ébe Ololo rí
'where the river is is far from where Ololo is'

d. o̲li é̲da rérḗ vbi ébe Ololo rí
'the river is far from where Ololo is'

In position one, the behavior of *Ololo* also appears consistent with other nonplace nouns. Evidence in its favor is the only acceptable sentence of 9, where the realization of RPM is asymmetrical, i. e. *Ololo* in position one in 9b is marked and *é̲da* 'river' in position two unmarked. This pattern of structural markedness is consistent with the PNC, supporting the interpretation that this constraint is based on a lexical distinction between place and nonplace nouns. And the lack of alternation in position one, coupled with the dissimilar lexical classes of the companion nouns, is again consistent with the SCC, supporting our earlier interpretation that its foundation is also grounded to the distinction between nominals of place and nonplace.

9. * a. Ololo rérḗ vbi o̲li é̲da
'Ololo is far from the river'

b. ébe Ololo rí rérḗ vbi o̲li é̲da
'where Ololo is is far from the river'

* c. ébe Ololo rí rérḗ vbi ébe o̲li é̲da rí
'where Ololo is is far from where the river is'

* d. Ololo rére vbi ébe ọli ẹ́da rí
'Ololo is far from where the river is'

The specification of the PNC and SCC in terms of the general classes place and nonplace is still further substantiated by pairing either two human nouns or two animal nouns. When *Ololo* and a companion human noun are paired, the resulting acceptable sentences manifest the pattern of variability and symmetry associated with object nouns in 1. Accordingly, the position one noun *Ololo* in the acceptable sentences of 10 alternates between a marked and unmarked NP, 10c and 10d, and the position two noun *Ohi* assumes only a marked NP form. Since this same markedness pattern across positions characterized object nouns (variable markedness in position one and a marked form for the position two NP) the specification of the SCC and PNC in terms of a lexical distinction broader than human or object seems justified. Moreover, the substitution of two animal nouns such as *ófe* 'rat' and *ẹ́we* 'goat' for *Ololo* and *Ohi* leads to an identical pattern of realization for RPM, showing that animal nouns, too, behave as nonplace nouns.

10. * a. Ololo rére vbi Ohi
'Ololo is far from Ohi'

* b. ébe Ololo rí rére vbi Ohi
'where Ololo is is far from Ohi'

c. ébe Ololo rí rére vbi ébe Ohi rí
'where Ololo is is far from where Ohi is'

d. Ololo rére vbi ébe Ohi rí
'Ololo is far from where Ohi is'

Irregularity begins to slip into our picture of RPM when human and animal nouns are paired with one another. Relevant in this regard are the sentences in 11, where *Ololo* in position one is paired with *ófe* 'rat.' Of these sentences, acceptability characterizes only 11c, in which the symmetrical pattern of NP marking for *Ololo* and *ófe* is consistent with the PNC. But most significant, there is in 11 a lack of alternation in position one, an irregularity, since *Ololo* and *ófe* behaved in 7, 8, 9 and 10, as did *ugín* and *ubele* in 1 and 2. Furthermore, if the nouns in 11 exchanged positions, alternation in position one would still be lacking.

11. * a. Ololo rérέ vbi ọli ófe
'Ololo is far from the rat'

* b. ébe Ololo rí rérέ vbi ọli ófe
'where Ololo is is far from the rat'

c. ébe Ololo rí rérέ vbi ébe ọli ófe rí
'where Ololo is is far from where the rat is'

* d. Ololo rérέ vbi ébe ọli ófe rí
'Ololo is far from where the rat is'

The next set of sentences, where animate and object nouns are paired, reflect even greater irregularity in what is not only another violation of the more general identity condition on the SCC but a violation of the PNC in position two as well. Consider in this regard that only one of the sentences in 12, where *Ololo* is paired with *ugín*, is acceptable, this being 12b. Since alternation in position one occurred when these nouns held opposite positions in 7, one would predict, assuming that the SCC

were specified in terms of the place/nonplace distinction, that alternation would again characterize the acceptable sentences of 12. There being no alternation, however, calls into question the broader lexical distinction hypothesized to underlie the identity condition of the SCC. A more adequate condition could perhaps be defined in terms of specific semantic classes, animal, human, object and location, but this would not account for sentences like 7 where the pairing of animate and object nouns led to alternation.

As for the PNC, its characterization in terms of the place/nonplace dichotomy is called into question too, for the position two object noun *ugín* is unmarked, whereas in previous acceptable sentences (1, 2 and 5) nonplace nouns of this type in second position consistently adopted the *ébe* clause. Perhaps a more specific lexical class is also functioning in these sentences, leading to the conclusion that the place/nonplace parameter should play no overall role in the interpretation of RPM. It is not obvious, however, what such more specific classes would be in the instance of 12.

12. * a. Ololo réré vbi o̲li ugín
'Ololo is far from the basket'

b. ébe Ololo rí réré vbi o̲li ugín
'where Ololo is is far from the basket'

* c. ébe Ololo rí réré vbi ébe o̲li ugín rí
'where Ololo is is far from where the basket is'

* d. Ololo réré vbi ébe o̲li ugín rí
'Ololo is far from where the basket is'

4.4 VILLAGE NOUNS

Contrary to the behavior of all previous noun types in *rere* constructions, nouns representing village names reveal an absolute constraint on the realization of RPM. Their behavior is entirely consistent with the PNC but not the SCC, either in terms of a specific or general condition on identity. To begin understanding the role of village nouns, compare the sentences presented in 13, where the village name *Afuze* in position one can occur only as an unmarked NP, 13a; it cannot adopt the *ébe* superstructure, 13b or 13c. Similarly, the village name *Auchi* in position two must occur in an unmarked NP, since 13c and 13d are unacceptable.

13. a. Afuze rére vbi Auchi
'Afuze is far from Auchi'

* b. Ébe Afuze rí rére vbi Auchi
'where Afuze is is far from Auchi'

* c. ébe Afuze rí rére vbi ébe Auchi rí
'where Afuze is is far from where Auchi is'

* d. Afuze rére vbi ébe Auchi rí
'Afuze is far from where Auchi be'

Concerning these sentences there are two aspects which merit attention. First, since neither noun in 13 adopts the *ébe* clause and since each is a place noun, the PNC, as specified in terms of the place/nonplace dichotomy, holds. Second, since both nouns represent entities of a single semantic class, one would assume, following even the specific semantic class condition on identity for the SCC, that the noun in position one would alternate

between a marked and unmarked NP. However, this assumption is not borne out by the acceptability pattern in 13, where village nouns are shown to be immune to the markedness alternation conditioned by the SCC, or more generally, the distinct discourse values affecting realization of RPM in position one.

If we now pair village and non-village nouns, another interesting irregularity in the occurrence of RPM is found, one reminiscent of the manner in which animate nouns affected both the PNC and the SCC. The village noun *Afuze*, for instance, when paired with any of the nouns previously examined, whether place or non-place, fails to alternate in position one between a marked and unmarked NP. This is congruent with its behavior in 13 and is supported by the three acceptable sentences of 14, where *Afuze* in position one occurs in an unmarked NP, 14d, 14h and 14l.

14. * a. Afuze rére vbi oli ugin
'Afuze is far from the basket'

* b. ebe Afuze ri rére vbi oli ugin
'where Afuze is is far from the basket'

* c. ebe Afuze ri rére vbi ebe oli ugin ri
'where Afuze is is far from where the basket is'

d. Afuze rére vbi ebe oli ugin ri
'Afuze is far from where the basket is'

* e. Afuze rére vbi Ololo
'Afuze is far from Ololo'

* f. ebe Afuze ri rére vbi Ololo
'where Afuze is is far from Ololo'

* g. ebe Afuze ri rére vbi ebe Ololo ri
'where Afuze is is far from where Ololo is'

h. Afuze réré vbi ébe Ololo rí
'Afuze is far from where Ololo is'

* i. Afuze réré vbi o̲li é̲da
'Afuze is far from the river'

* j. ébe Afuze rí réré vbi o̲li é̲da
'where Afuze is is far from the river'

* k. ébe Afuze rí réré vbi ébe o̲li é̲da rí
'where Afuze is is far from where the river is'

l. Afuze réré vbi ébe o̲li é̲da rí
'Afuze is far from where the river is'

Putting the behavior of *Afuze* aside, it is the behavior of its position two companion nouns which captures our attention, for regardless of their individual representation of manipulable object (14d), human/animal (14h) or, interestingly, location (14l), each position two noun must be marked. Since location nouns, assumed to be place nouns, and nonplace nouns are thus treated identically with respect to RPM when the companion position one noun is a village name, the lexical level at which the PNC is specified is again brought into question.

If the nouns in these constructions exchange position so that a village noun assumes position two, the regularity of the PNC is restored. More specifically, a reversal of positions shows that position one NPs containing *ugín* 'basket' (and by extension other nonplace nouns like *Ololo* and *ófe*) or *é̲da* 'river' no longer exhibit a similar pattern of marking. Taking sentences with *ugín* and *Afuze* first, one sees that in the only acceptable sentence of 15, *ugín* in position one is marked and *Afuze* in position two

unmarked. That *ugín* would be limited to a marked form in 15b is consistent with its status as a nonplace noun and its behavior with the place nouns *óa* and *ẹ́da* in 3 and 4. Hence, 15b follows from a specification of the PNC in terms of the lexical classes place and nonplace. It too is consistent with the SCC, for the companion nouns are not members of the same class on the place/nonplace dimension or at a more specific level of lexical analysis.

15. * a. *ọ́li ugín rérḗ* vbi Afuze
'the basket is far from Afuze'

b. *ébe ọ́li ugín rí rérḗ* vbi Afuze
'where the basket is is far from Afuze'

* c. *ébe ọ́li ugín rí rérḗ* vbi *ébe* Afuze *rí*
'where the basket is is far from where Afuze is'

* d. *ọ́li ugín rérḗ* vbi *ébe* Afuze *rí*
'the basket is far from where Afuze is'

However, the crucial test for the SCC, at least in terms of identifying its level of lexical specification, involves the pairing of a location noun and *Afuze*. In the sentences of 16, *Afuze* assumes position two and the location noun *ẹ́da* occupies position one. This pairing leads to the acceptability of both 16a and 16b and most importantly to a location noun *ẹ́da* in position one which is not confined to a marked form. *Ẹ́da* alternates between a marked and unmarked NP. Since this variable realization of RPM in position one occurs under conditions of general identity captured by the place/nonplace parameter, our original hypothesis specifying the SCC in terms of this general

condition does indeed seem appropriate. And with this, the context for the nonplace-like behavior of *ẹ́da* in 14 assumes greater clarity: its occurrence in position two and its pairing with a position one village noun. It appears, therefore, that syntactic position in addition to lexical class must play a role in our understanding of irregularities in the realization of RPM, a topic to be taken up shortly.

16. a. o̲li ẹ́da rére vbi Afuze
'the river is far from Afuze'

b. ébe o̲li ẹ́da rí rére vbi Afuze
'where the river is is far from Afuze'

* c. ébe o̲li ẹ́da rí rére vbi ébe Afuze rí
'where the river is is far from where Afuze is'

* d. o̲li ẹ́da rére vbi ébe Afuze rí
'the river is far from where Afuze is'

5.0 ANALYSIS OF RPM

The sentences in the preceding sections have shown how various classes of nouns in Emai vary in their compliance with RPM, as measured by occurrence of an *ébe* clause in position one and position two of *rere* constructions. Fundamental to description of this overall variability were two constraints, the SCC and PNC, the former highlighting RPM's discourse function in position one, and the latter its preferential attraction to nonplace nouns as against place nouns.

5.1 LEXICAL SEMANTICS AND DISCOURSE

With respect to the overall system of constraints defining RPM, it is evident that the discourse marking of nominals serving as locative reference points is subordinate to factors pertaining to lexical semantics. As an indicator of specific discourse values, RPM serves to specify the spatial position of a nominal referent as new or given information just in case its companion noun is a member of the same lexical class, i.e. place or nonplace. Such a finding is contrary to predictions derived from Hopper and Thompson (1984) and others who would maintain that semantic factors in all grammatical circumstances are secondary to discourse in defining the nature of linguistic structure.

A possible source of these divergent findings is the present study's focus on spatial position, in particular its introduction into discourse, compared to Hopper and Thompson's emphasis on nonspatial participants. Though further investigation is obviously necessary, it may be that spatial and nonspatial participants stand at different poles in their contribution to discourse and that this underlies the contrasting treatment of the relationship between lexical semantics and discourse. Still, an analysis of Emai reference point marking restricted to only these factors would ignore the more complex web into which they are embedded, as pointed to by the irregularities.

5.2 PROTOTYPICALITY

Our attention now turns to those irregularities in the operation of RPM noted at different points in our discussion. Recall that one of these centered on the appropriateness of specifying the SCC in terms of the place/nonplace parameter, an issue brought into question by the alternation failure in sentences pairing village or animate nouns. Of initial interest with respect to these two noun types is their differential attraction for the *ébe* clause frame: village nouns consistently repel it, whereas human and animal nouns with nearly equal consistency attract it.

Village nouns (more generally names for geographic locations) in the general scheme of RPM appear highly idiosyncratic. Their consistently unmarked value when functioning as locative reference points, relative to the variable marking of location, object, human and animal nouns, implies that the spatial positions of their referents do not represent values which change in the consciousness of a speaker; since their discourse status as locative reference points never changes, they would not be subject to introduction as given or new information. With a moment's reflection this explanation seems highly satisfactory, for the meaning of a village name like *Afuze* is its position in space. In this light, village names are easily viewed as prototypical members of the reference point category (Rosch 1973, 1978).

Expanding this interpretation via the distribution of the *ébe* clause, one can delineate the internal structure of the reference point category as a hierarchy grounded to spatial stability, somewhat analogous to Givon's (1984) use of a time stability scale to characterize different parts of speech. On this hierarchy, village nouns exhibit the greatest degree of spatial stability and so consistently repel the *ébe* clause. At the opposite extreme, and attracting *ébe* with the greatest consistency of all semantic classes, are animate nouns of the human and animal classes. Between these extremes, the classes of object and location nouns assume natural positions based on their wavering attraction for the *ébe* clause, with the former tending toward animates and the latter toward village names, and with the breadth of the hierarchy allowing for the distinction between nonplace and place nouns. Such a hierarchy captures the generalization that as the spatial stability of a noun's referent increases, the nouns attraction for the *ébe* clause is weakened, and as that spatial stability decreases, the attraction for *ébe* is strengthened.

Supposing the reference point category to reflect a prototypic nature, the realization of RPM should be sensitive not only to the semantic class of both nouns in a *rere* construction, i.e. place vs nonplace, but to the degree to which a noun instantiates either of these dimensions. Indeed, the behavior of some nouns not yet examined herein is best explained by positing a more

fluid structure between the general classes of place and nonplace nouns.

In this regard, consider the noun *óran* 'tree' as it occurs in the sentences of 17 and 18 with the object noun *ugín* 'basket.' In the acceptable sentences of 17 *óran* occupies position one and alternates between a marked and unmarked NP, compared to *ugín* in position two which occurs only in a marked NP. Based on the previously established link between alternation in position one and the SCC, one would infer that the nouns *óran* and *ugín* are members of a single lexical class.

17. * a. o̲li óran rérέ vbi o̲li ugín
'the tree is far from the basket'

* b. ébe o̲li óran rí rérέ vbi o̲li ugín
'where the tree is is far from the basket'

c. ébe o̲li óran rí rérέ vbi ébe o̲li ugín rí
'where the tree is is far from where the basket is'

d. o̲li óran rérέ vbi ébe o̲li ugín rí
'the tree is far from where the basket is'

When the order of these nouns is reversed, as in 18, alternation again characterizes the position one noun, this time *ugín*. It alternates between a marked and unmarked NP in the acceptable sentences, further supporting the interpretation that both nouns are members of the same class. Additionally, the marked form of *óran* in position two aligns it with the behavior of nonplace nouns in a similar position in the acceptable sentences of 1 and 2. Relative to the PNC and SCC, the behavior of *óran* appears similar to that of other nonplace nouns.

18. * a. ọ́li ugín rérẹ́ vbi ọ́li óran
'the basket is far from the tree'

* b. ébe ọ́li ugín rí rérẹ́ vbi ọ́li óran
'where the basket is is far from the tree'

c. ébe ọ́li ugín rí rérẹ́ vbi ébe ọ́li óran rí
'where the basket is is far from where the tree is'

d. ọ́li ugín rérẹ́ vbi ébe ọ́li óran rí
'the basket is far from where the tree is'

The strength of this hypothesis begins to waver, however, after a consideration of sentences in which *óran* 'tree' is paired with a location noun, such as *ẹ́da* 'river' in 19 and 20. Relative to the acceptable sentences 19a and 19b, *óran* in position one alternates between a marked and unmarked NP and *ẹ́da* in position two remains unmarked.

19. a. ọ́li óran rérẹ́ vbi ọ́li ẹ́da
'the tree is far from the river'

b. ébe ọ́li óran rí rérẹ́ vbi ọ́li ẹ́da
'where the tree is is far from the river'

* c. ébe ọ́li óran rí rérẹ́ vbi ébe ọ́li ẹ́da rí
'where the tree is is far from where the river is'

* d. ọ́li óran rérẹ́ vbi ébe ọ́li ẹ́da rí
'the tree is far from where the river is'

But what is most revealing about the behavior of *óran* is that when the nouns in 19 reverse positions, this same pattern of marking is maintained. That is, in the acceptable sentences of 20, the position one noun *ẹ́da* alternates between a marked and unmarked NP, and the noun *óran* in position two exhibits no alternation, it being exclusively unmarked. This latest pattern of behavior is comparable to that of pairing location nouns in 6,

where the position one NP alternated between a marked and unmarked NP and the position two NP remained unmarked. One thus concludes from *óran*'s behavior in 19 and 20 that it is a place noun.

20. a. oli éda réré vbi o̲li óran
'the river is far from the tree'

b. ébe o̲li éda rí réré vbi o̲li óran
'where the river is is far from the tree'

* c. ébe o̲li éda rí réré vbi ébe o̲li óran rí
'where the river is is far where the tree is'

* d. o̲li éda réré vbi ébe o̲li óran rí
'the river is far from where the tree is'

To recapitulate what seem to be contradictory findings, the noun *óran*, when accompanied by what was previously determined to be a place noun, manifests characteristics of a place noun and, when accompanied by a nonplace noun, reveals properties of a nonplace noun. This chameleon-like behavior is not restricted to *óran*, for a noun like *uhai* 'well' behaves similarly if substituted in sentences 17-20. The most likely interpretation of this variable behavior is that nouns like *óran* and *uhai* are conceptualized by Emai speakers as categories in the fluid zone at the periphery of the lexical classes place and nonplace, substantiating further that the classificatory system underlying RPM is far less rigid than was initially presumed.

5.3 Figure/Ground

Recognition of RPM as a grammatical process tied to degrees of spatial stability allows us to account for the behavior of nouns

like *óran* as well as village nouns, since the prototypic status of the latter leaves them immune to RPM. This also moves us one step toward accounting for remaining irregularities. Our second step is a bit more problematic, as we recall their particulars. Violating the PNC were location nouns which adopted the *ébe* clause in position two in 14l and object nouns which repelled *ébe* in a similar position in 12b. This occurred even though both noun types in position one, and accompanied by their village or animate counterpart, exhibited alternation betweeen a marked and unmarked NP. As for SCC violations, they included the alternation failure in 12b and 11, the latter occurring when two animate nouns were paired.

On the one hand, it may be that PNC irregularity derives from the peripheral membership of the affected nouns in their respective lexical classes, place or nonplace. According to this argument, the nouns *éda* 'river' and *ugín* 'basket' would attract or repel the *ébe* clause in the same fashion as *óran* 'tree' did in sentences 17-20. Arguing against this interpretation is the nonperipheral behavior of these nouns when paired with other nouns of either lexical class.

A second interpretation is to assume that the irregularity emanates from the fact that the companion noun in position one, i. e. *Ololo* in 12 and *Afuze* in 14, is a Proper Noun. In some as yet unarticulated scheme Proper Noun status would thus interfere with the application of RPM. One important fact argues against

this interpretation too. Animate but nonhuman nouns in 12, i.e. common nouns referring to animals, also engender irregularity. Another relevant fact is that RPM irregularity in 12 and 14 is not exhibited by the position one noun itself but by its companion noun in position two. It is thus the nature of the relationship between position one and position two and the nouns occupying these positions which merits attention.

The factor to which we must then direct analysis is the nature of the relationship between positions occupied by reference point nouns in a *rere* construction. A theoretical interpretation of sentential relations which seems particularly well-suited to such a construction is found in the analyses of Talmy (1975, 1985), Langacker (1982, 1983) and others, who postulate that a verb imposes on its accompanying nouns a hierarchic relationship incorporating a distinction between Figure and Ground. Figure refers to an entity whose position in space is being specified, as is the case with the pre-verbal nominal in a *rere* construction, and Ground to an entity with respect to which that position is defined, the post-*rere* noun. If one assumes that there is a need to maintain this contrast and that this intertwines with the hierarchical structure of the reference point category, then a clearer perspective is gained on the remaining RPM irregularities, and for that matter, the occurrence of RPM in general.

Proceeding on this track, one recognizes that under the nonidentity condition contrastive marking of place and nonplace nouns by the *ébe* clause serves to distinguish the noun functioning as Figure from the noun serving as Ground. In a similar though more complex fashion, the identity condition strives to maintain contrastive marking too. That is, the pairing of the more spatially stable place nouns results in contrastive *ébe* marking in case the spatial position of the Figure represents new information, while the pairing of the less stable nonplace nouns leads to contrastive marking in case the spatial position of the Figure represents given information. Assuming that the given information structure is more usual in discourse, then under the condition of identity, companion nonplace nouns will normally exhibit the Figure/Ground contrast, but companion place nouns, whose spatial stability is more fixed, normally will not. Thus discourse, lexical semantics and the Figure/Ground contrast form a web of interacting grammatical factors for treating locative reference points.

This brings us to the cases of irregularity. For these, a particularly relevant notion is that Figure is conceptualized as less stable in space than Ground (Talmy 1983). It is revealing, therefore, that the cases of irregularity arise when the position of Figure is occupied by a noun which on the spatial stability hierarchy is either at the highest extreme within the place dimension or the lowest extreme within nonplace. In order to

maintain the Figure/Ground contrast among place and nonplace nouns in this special circumstance, the normal constraints governing *ébe* attraction give way to a stricter principle of identity for the SCC and a loosening of the attraction principle for the PNC.

To illustrate how these revised principles function, if a prototypic reference point noun like *Afuze*, which under all conditions is unmarked, assumes the position of Figure, then in order to maintain the contrast underlying the Figure/Ground distinction, the Ground position noun, unless it is equally prototypical, must be marked by the *ébe* clause. This principle characterizes sentence 141, the unexpected attraction of the *ébe* clause to a location noun, and reveals the constraining influence of the spatial stability hierarchy where location nouns, manifesting the least degree of spatial stability within the place dimension, become the most likely candidate to attract *ébe*.

In the other case, when a reference point noun of aprototypic quality like *Ololo*, which under all conditions except that of given information is marked, assumes the position of Figure, the contrast underlying Figure/Ground can only be maintained by not marking the Ground position noun, unless it is equally aprototypical. This is exactly what occurs in 12b, where an object noun unexpectedly repels the *ébe* frame. That a noun of this type within the nonplace dimension, and not some other, should behave so follows from the fact that object nouns, of all

classes on this dimension exhibit the greatest degree of spatial stability.

The principle of strict identity resulting from the union of spatial instability at the Figure/Ground and lexical levels also accounts for the remaining instances of SCC irregularity. In the irregularity shown in the sentences of 11 and 12, the Figure was an animate noun, but the Ground, though also a nonplace noun, was not of the same more specifically defined semantic class. As a result the spatially unstable animate noun in the position of Figure did not alternate between a marked and unmarked NP.

This interpretation of RPM irregularity suggests, therefore, that the categorization of spatial stability inherent in a verb and articulated through its accompanying nominals by a distinction between Figure/Ground, takes precedence over spatial stability as expressed at the lexical level, place vs nonplace, under limited lexical and syntactic conditions, while the latter lexical distinction determines the extent to which divergent discourse values affect the grammatical expression of locative reference points.

6.0 SUMMARY

The grammatical nature of dual reference-point verbs has been explored using sentences containing the predicate *rere* 'to be far' and two companion nouns. Of particular focus was a process

of Reference Point Marking (RPM) and its pattern of variable application with respect to nouns of different lexical classes. RPM, signaled by a wh-clause frame, serves to designate nonplace nouns as opposed to place nouns in sentences where these different types of nouns are paired. However, in sentences where the companion nouns are both of the same semantic class, the position one noun is variably marked, either with the *ébe* frame in case it reflects new information in the estimation of the speaker, or with no *ébe* clause if it represents given information.

The principal exception to this generalization is represented by village nouns which under no conditions attract the *ébe* clause. These nouns suggest that the reference point category is hierarchical in nature. Various other irregularities in the manifestation of RPM argue that the behavior of this category varies according to pre- or post-verbal position, a finding in agreement with the theoretical distinction drawn between Figure and Ground in the work of Talmy (1975, 1983, 1985) and Langacker (1982, 1983). Ultimately, the morpho-syntactic behavior of locative reference point nouns appears to have its origin in the Figure/Ground structure of the verb and its conceptualization of relative spatial stability. Although the tentative nature of these conclusions must be stressed, it is hoped that this presentation will lead us to examine afresh the intricate relationship between lexical semantics, syntax and discourse.

FOOTNOTES

1. An abbreviated and much less focused version of this paper was delivered at the Winter Meeting of the Linguistic Society of America, New York, December 27-29, 1986.

2. Emai is spoken in Owan Local Government Area of Bendel State, Nigeria. It is included among the Kwa languages and, more specifically, is classified by Hansford, Bendor-Samuel and Stanford (1976) as part of the Emai-Ora-Iuleha cluster of the North Central Branch of Edoid

3. Emai data are presented in an orthographic format outlined in Schaefer (To appear), in particular designating high tone only and using 'vb' for a voiced bilabial fricative, 'o̱' for a half-open back vowel, 'e̱' for a half-open front vowel.

REFERENCES

Brown, Gillian and Robert Yule. 1983. Discourse Analysis. New York: Cambridge University Press.

Chafe, Wallace. 1976. Givenness, contrastiveness, definiteness, subjects, topics, and point of view. In Charles N. Li (Ed.), Subject and Topic, pp. 25-55. New York: Academic Press.

Denny, J. Peter. 1984. Lexical semantics and logical form: Locatives, event arguments and conditionals. In D. Tester, V. Michra and J. Drogo (Eds.), Papers from the Parasession on Lexical Semantics. pp. 107-116. Chicago: Chicago Linguistics Society.

Foley, William A. and Robert D. Van Valin Jr. 1984. Functional Syntax and Universal Grammar. New York: Cambridge University Press.

Givon, Talmy. 1984. Syntax: A Functional-Typological Introduction, Volume 1. Philadelphia: John Benjamins.

Handsford, K., J. Bendor-Samuel and R. Stanford. 1976. Studies in Nigerian Languages: An Index of Nigerian Languages. Accra: Summer Institute of Linguistics.

Hopper, Paul J. and Sandra A. Thompson. 1984. The discourse basis for lexical categories in universal grammar. Language 60, 4: 703-752.

Langacker, Ronald. 1982. Space grammar, analysability and the English passive. Language 58: 22-80.

Langacker, Ronald. 1983. Foundations of Cognitive Grammar. Bloomington: Indiana University Linguistics Club.

Lyons, John. 1977. Semantics, Volume 2. New York: Cambridge University Press.

Rosch, Eleanor H. 1973. Natural Categories. Cognitive Psychology 4, 328-350.

Rosch, Eleanor H. 1978. Principles of categorization. In E. Rosch and B. Lloyd (Eds.), Cognition and Categorization, 27-48, Hillsdale: Erlbaum.

Schaefer, Ronald P. (To appear). An Initial Orthography and Lexicon for Emai: An Edoid Language of Nigeria. Bloomington: Indiana University Linguistics Club.

Talmy, Leonard. 1975. Semantics and syntax of motion. In J. Kimball (Ed.), Syntax and Semantics, Volume 4. pp. 181-238. New York: Academic Press.

Talmy, Leonard. 1983. How language structures space. In H. Pick and L. Acredolo (Eds.), Spatial Orientation: Theory, Research and Application. New York: Plenum.

Talmy, Leonard. 1985. Lexicalization patterns: Semantic structure in lexical forms. In T. Shopen (Ed.), Language Typology and Syntactic Field Work, Volume III. pp. 57-149. New York: Cambridge University Press.